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DATE MAILED: 08/26/2009

## NOTICE OF ALLOWANCE AND FEE(S) DUE

881 7590 08/26/2009 STITES & HARBISON PLLC 1199 NORTH FAIRFAX STREET SUITE 900

ALEXANDRIA, VA 22314

EXAMINER
MISKA, VIT W

ART UNIT PAPER NUMBER
2833

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,926	02/06/2006	Gideon Levingston	P08537US00/DEJ	4926
THE C OF INVENTION, MCCHANICAL OCCULATOR SYSTEM				

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$300	\$0	\$1055	11/27/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 1SI. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FFE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This appropriate. All further indicated unless correcte maintenance fee notificat	form should be used to correspondence including d below or directed off tions	for transmitting the ISS ing the Patent, advance of nerwise in Block 1, by (	UE FEE and PUBLICATI rders and notification of r a) specifying a new corres	ON FEE (if required naintenance fees will pondence address; ar	<ol> <li>Blocks 1 through 5 s be mailed to the current id/or (b) indicating a sepa</li> </ol>	hould be completed where correspondence address as trate "FEE ADDRESS" for
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)			Note Feet paps	e: A certificate of ma s) Transmittal. This c ers. Each additional p	iling can only be used for ertificate cannot be used for aper, such as an assignment mailing or transmission	r domestic mailings of the or any other accompanying nt or formal drawing, must
1199 NORTH FA SUITE 900	7590 08/26 RBISON PLLC AIRFAX STREET	72009	Lbe	Certification Certification	cate of Mailing or Trans	
ALEXANDRIA,	, VA 22314					(Depositor's name)
						(Signature)
						(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR	A	ITORNEY DOCKET NO.	CONFIRMATION NO.
10/520,926	02/06/2006		Gideon Levingston	•	P08537US00/DEJ	4926
TITLE OF INVENTION	: MECHANICAL OSCI	LLATOR SYSTEM				
APPLN, TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE F	EE TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$300	\$0	\$1055	11/27/2009
EXAM	INER	ART UNIT	CLASS-SUBCLASS			
MISKA,		2833	368-169000			
"Fee Address" indi PTO/SB/47; Rev 03-0 Number is required.  3. ASSIGNEE NAME A	ondence address (or Cha 3/122) attached. ication (or "Fee Address 2 or more recent) attach ND RESIDENCE DAT. ess an assignce is ident h in 37 CFR 3.11. Comp	nge of Correspondence "Indication form and. Use of a Customer A TO BE PRINTED ON	2. For printing on the p (I) the names of up to or agents OR, alternativ (2) the name of a singl registered attorney or 2 2 registered patent atto listed, no name will be THE PATENT (print or typ data will appear on the p TT a substitute for filing an (B) RESIDENCE: (CITY	3 registered patent a rely, e firm (having as a m gent) and the names meys or agents. If no printed.	ember a 2	ocument has been filed for
Please check the appropri	iate assignee category or	categories (will not be p	rinted on the patent):	Individual Corp	oration or other private gro	oup entity Government
4a. The following fee(s) are submitted:    Issue Fee   Publication Fee (No small entity discount permitted)   Advance Order - # of Copies			b. Payment of Fee(s): (Plea A check is enclosed. Payment by credit car The Director is hereby overpayment, to Depo	d. Form PTO-2038 is authorized to charge	attached. the required fee(s), any de	
	s SMALL ENTITY state	as. See 37 CFR I.27.			ENTITY status. See 37 Cl	
interest as shown by the r	d Publication Fee (if req records of the United Sta	uired) will not be accepte ites Patent and Trademarl	ed from anyone other than t k Office.	he applicant; a registe	red attorney or agent; or th	ne assignee or other party in
Authorized Signature				Date		
Typed or printed name				Registration No.		
This collection of inform an application. Confident submitting the completed this form and/or suggesti Box 1450, Alexandria, V Alexandria, Virginia 223	ation is required by 37 C itality is governed by 35 I application form to the ons for reducing this bu irginia 22313-1450. DO 13-1450.	CFR 1.311. The informati U.S.C. 122 and 37 CFR USPTO. Time will var- rden, should be sent to the ONOT SEND FEES OR	on is required to obtain or r 1.14. This collection is est depending upon the indiv the Chief Information Office COMPLETED FORMS TO	etain a benefit by the imated to take 12 mir idual case. Any come r, U.S. Patent and Tra D THIS ADDRESS. S	public which is to file (and utes to complete, includir nents on the amount of ti- idemark Office, U.S. Dep END TO: Commissioner	by the USPTO to process) g gathering, preparing, and me you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450,

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OMB 0651-0033



# UNITED STATES PATENT AND TRADEMARK OFFICE

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STITES & HAR	BISON PLLC	MISKA, VIT W		
1199 NORTH FAIRFAX STREET			ART UNIT	PAPER NUMBER
SUITE 900 ALEXANDRIA, V	/A 22314		2833	

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 172 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 172 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 (571)-272-4200.

# Notice of Allowability

Application No.	Applicant(s)	
10/520,926	LEVINGSTON, GID	EON
Examiner	Art Unit	
Vit W. Miska	2833	

The MALING DATE of this communication appears on the claim being allowable, PROSECUTION ON THE MERITS IS (OR REPherewith for previously mailed), a Notice of Allowance (PTOL-55) or other NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. Of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPS.	MAINS) CLOSED in this application. If not included appropriate communication will be mailed in due course. THIS This application is subject to withdrawal from issue at the initiativ
1. This communication is responsive to <u>Amdmnt of 5/20/2009</u> .	
2. The allowed claim(s) is/are 1-4,6 and 9-23.	
3.   Acknowledgment is made of a claim for foreign priority under 35 L  a)     All   b)   Some* o   Mone of the:  1.    Certified copies of the priority documents have been re  2.   Certified copies of the priority documents have been re  3.   Copies of the certified copies of the priority documents International Bureau (PCT Rule 17.2(a)).  * Certified copies not received:  Applicant has THREE MONTHS FROM THE "MAILING DATE" of this concided below. Failure to timely comply will result in ABANDONMENT of this THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.	ceived.  ceived in Application No  have been received in this national stage application from the
A SUBSTITUTE OATH OR DECLARATION must be submitted. Not INFORMAL PATENT APPLICATION (PTO-152) which gives reason	
CORRECTED DRAWINGS ( as "replacement sheets") must be sub (a) including changes required by the Notice of Draftsperson's Pat 1) hereto or 2) to Paper No./Mail Date	ent Drawing Review ( PTO-948) attached  ment / Comment or in the Office action of  ould be written on the drawings in the front (not the back) of
DEPOSIT OF and/or INFORMATION about the deposit of BI attached Examiner's comment regarding REQUIREMENT FOR THE	
Attachment(s)  1. Notice of References Cited (PTO-892)  2. Notice of Draftperson's Patent Drawing Review (PTO-948)  3. Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date  4. Examiner's Comment Regarding Requirement for Deposit of Biological Material	Notice of Informal Patent Application     Interview Summary (PTO-413),     Paper No./Mail Date,     Examiner's Amendment/Comment     Examiner's Statement of Reasons for Allowance     ☐ Other
/Vit W. Miska/ Primary Examiner, Art Unit 2833	

Application/Control Number: 10/520,926

Art Unit: 2833

The following is an examiner's statement of reasons for allowance:

Claims 1-4, 6 and 9-22 are allowed because the prior art does not disclose or suggest a mechanical oscillator comprising a non-magnetic balance, a non-magnetic balance spring made of a composite material or polymer, carbon or ceramic, wherein the balance and spring are adapted such that the coefficient of thermal expansion of the balance, the coefficient of thermal expansion of the balance spring and the thermoelastic coefficient of the balance spring cooperate to compensate for thermal variations in the system. Specifically, the prior art lacks a ceramic balance in combination with the required balance spring coefficients compensating the balance coefficients set forth in claim 1.

Claim 23 is allowed because the prior art does not disclose or suggest a non magnetic balance spring for an oscillator mechanism in a horological instrument, the balance spring made of a composite material or polymer, carbon or ceramic material, wherein the balance spring material has a coefficient of thermal expansion and thermoelastic coefficient arranged to cooperate with the coefficient of thermal expansion of the balance by decreasing in length and increasing in thickness with increase in temperature to compensate for thermal variations in the system. Specifically, the prior art lacks the claimed balance spring material having the claimed thermal coefficients in the length and thickness direction.

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### DRAWINGS

The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Three figures of drawings appear in the PCT application submitted. However, the drawings appear adjacent the abstract and cannot be found in the body of the application. Further, the drawing figures are not referred to or described in the specification.

Applicant is required to furnish a drawing under 37 CFR 1.81(c) and to provide a brief description thereof in the specification. No new matter may be introduced in the required drawing. Each drawing sheet submitted after the filling date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Application/Control Number: 10/520,926

Art Unit: 2833

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vit W. Miska whose telephone number is 571-272-2108. The examiner can normally be reached on M-F 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Renee Luebke can be reached on 571-272-2009. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vit W. Miska/ Primary Examiner, Art Unit 2833